ABSTRACT

A method is described for taking a three-dimensional virtual model of the dentition and associated anatomical structures of a patient and isolating individual teeth from the rest of the anatomical structure, e.g. gums, to thereby produce individual, virtual three-dimensional tooth objects. The individual tooth objects can be displayed on the display of an orthodontic workstation and moved independently from each other, and thereby form the basis of planning treatment for the patient. The individual, virtual three-dimensional tooth objects are created by comparing the virtual model of the dentition to virtual, three-dimensional template teeth that are stored in memory in a process described in detail herein. The template teeth can include roots as well as crowns. The template teeth can be stored objects acquired from some external source or alternatively developed from a database of patient scans. Virtual three-dimensional brackets are also stored in the memory of the workstation. The virtual brackets can be placed on the virtual teeth and moved relative to the teeth as needed in a preliminary step in treatment planning.